What is claimed is:

1. A thermostat for controlling a climate control system that includes a compressor, the thermostat operating the compressor in response to at least one signal representative of the operation of the compressor.

2. The thermostat according to claim 2 wherein the at least one signal representative of the of the operation of the signal is a signal representative of the current drawn by the compressor.

3. A thermostat for controlling a climate control system that includes a compressor, the thermostat locking out the operation of the compressor in response to an error signal received from an external device.

4. A system for controlling the compressor in a climate control system, the system comprising a module that generates signals relating to the operation of the compressor, and a thermostat, responsive to the module, for controlling the compressor.

5. A climate control system comprising a compressor, and module for generating at least one signal based upon the operation of the compressor, and a thermostat for controlling the compressor, the thermostat controlling the compressor in response to signals generated by the module.

6. The climate control system according to claim 5 wherein the thermostat displays an alarm in response to a signal generated by the module.

7. The climate control system according to claim 5 wherein the thermostat locks out the compressor to prevent operation of the compressor for at least a predetermined lockout period in response to a signal generated by the module.

8. The climate control system according to claim 7 wherein the thermostat displays an alarm while the compressor is locked out and the set point temperature is unsatisfied.

9. The climate control system according to claim 7 wherein the thermostat resumes normal operation of the compressor the next time the set point temperature is unsatisfied if deenergizing the compressor clears the signal from the module.

10. The climate control system according to claim 7 wherein the thermostat restarts the compressor at least once for a predetermined time after the predetermined lock out period if deenergizing the compressor does not clear the signal from the module.

11. The climate control system according to claim 8 wherein the thermostat restarts the compressor a predetermined number of times, and locks out the compressor if the signal from the module does not clear after the predetermined number of times.

12. The climate control system according to claim 5 wherein the thermostat is selectable operable between a lockout mode, in which thermostat locks out the compressor for at least temporarily in response to a signal from the module, and a non-lockout mode in which the thermostat displays an alarm but does not lock out the compressor in response to a signal from the module.

13. The climate control system according to claim 5 wherein the module generates more than one signal, and wherein the thermostat controls the compressor differently depending upon the signal.

14. A method of operating a climate control system comprising a compressor, the method comprising generating a signal based upon the operation of the compressor, controlling the compressor in response to the generated signal.

15. The method according to claim 14 further comprising displaying an alarm in response to the generated signal.

16. The method according to claim 14 further comprising locking out the compressor to prevent operation of the compressor for at least a predetermined lockout period in response to the generated signal.

17. The method according to claim16 further comprising displaying an alarm while the compressor is locked out and the set point temperature of the climate control system is unsatisfied.

18. The method according to claim 14 further comprising resuming normal operation of the compressor the next time the set point temperature is unsatisfied if deenergizing the compressor clears the signal from the module.

19. The method according to claim 14 wherein the thermostat restarts the compressor at least once for a predetermined time after the predetermined lock out period if deenergizing the compressor does not clear the signal from the module.

20. The method according to claim 14 wherein the compressor is restarted a predetermined number of times, and locks out the compressor if the signal from the module does not clear after the predetermined number of times.

21. A method of operating a climate control system comprising a compressor, the method comprising receiving a signal based upon the operation of the compressor, the signal comprising a series of pulse separated by spaces, and controlling the compressor in response to the received signal.

22. The method according to claim 21 wherein the step of controlling the compressor is responsive to the number of pulses received.

23. The method according to claim 23 wherein the step of controlling the compressor is responsive to the number of pulses received and the duration of the pulses received.

24. A thermostat for controlling a climate control system including at least one compressor, based in part on pulsed signals from a compressor health indicator connected to the at least one compressor, the thermostat sensing the number of pulses in the signal, and the duration of the pulses in the signal, and control the compressor in response thereto.

25. A climate control system comprising: a climate control apparatus for changing the temperature in a controlled spaced, and a thermostat for operating the climate control apparatus based upon a set point temperature, a sensed temperature in the controlled space, and a signal relating to an operating parameter of the climate control apparatus.

26. The climate control system according to claim 25 wherein the signal relating to an operating parameter of the climate control apparatus is transmitted wirelessly from the climate control apparatus.

27. A method of operating a climate control apparatus for changing the temperature in a controlled space, the method comprising: receiving a signal from a climate control apparatus, operating the climate control apparatus based upon a set temperature, a sensed temperature in the controlled space, and the signal received from the climate control apparatus.

28. A thermostat for operating a climate control apparatus to control the temperature in the controlled space, the thermostat controlling the climate control apparatus in response to a set temperature for the controlled space, a sensed temperature for the controlled space, and a signal relating to an operating parameter of the climate control apparatus.

29. The thermostat according to claim 28 wherein the thermostat receives a wireless signal relating to an operating parameter of the climate control apparatus.

30. The thermostat according to claim 28 wherein the thermostat comprises a receiver for receiving signals relating to an operating parameter of the climate control apparatus.